IP Link® Device Interface
Ethernet Communication Sheet

This document provides additional assistance with wiring your Extron IP Link enabled product to your device. Different components may require a different wiring scheme than those listed below.

For complete operating instructions, refer to the user's manual for the specific Extron IP Link enabled product or the controlled device manufacturer supplied documentation.

Device Specifications:

Device Type:	TV Tuner
Manufacturer:	Contemporary Research
Firmware Version:	N/A
Model(s):	232-ATSC, 232-ATSC+, 232-ATSC+1, 232-ATSC+SDI

Minimum Software and Firmware Requirements:

IP Link Compiler	IP Link Firmware	GC Version
1.6.0	1.15	3.5.1

Version History:

Driver Version	Date	Notes
2	10/22/2013	Extron Certified Version. Added model 232-ATSC+SDI
1	12/17/2012	Initial Certified version. Tested on 232-ATSC+1.

Driver Notes:

- The Driver has been optimized for Volume.
- Selecting all units will only enable connection and power status.

Discrete Channel Control

To use discrete channel, enter channel number according to the signal type, then press enter to execute command.
Note: To choose only analog channels leave Minor Channel as 0.

Channel ranges:

Major Channel: 0-999
Minor Channel: 0-9

GV Tuning Examples:

To tune to channel 52 in Analog, press

1. Choose Air/Cable in Tuner Mode
2. "5" in Channel Select
3. "2" in Channel Select
4. "Enter" in Channel Number (assuming minor channel was left at 0)

To tune to channel 52.4 in Digital, press

1. Choose Air/Cable in Tuner Mode
2. "5" in Channel Number
3. "2" in Channel Number
4. "." in Channel Number
5. "4" in Channel Number
6. "Enter" in Channel Number

Control Commands & States:

Aspect Ratio	Toggle		
Audio Mute	On	Off	
Channel	Up	Down	
Channel Select	0-9	.	Enter
	Clear		
Close Caption Channel	CC1	CC2	CC3
	CC4	TEXT1	TEXT2
	TEXT3	TEXT4	
Closed Caption	On	Off	
Executive Mode	None	Channel	Volume
	Channel+Volume	Mute A/V	Channel+Mute A/V
	Volume+Mute A/V	All	
Menu Call	List	Menu	
Menu Navigation	Up	Down	Left
	Right	Enter	Exit
Output	RGB*	YPbPr	
Power Control	On	Off	
Tuner Mode	Air	Cable	
Unit Number	1-9	All Units	
Video Mute	On	Off	
Volume (Discrete)	0 to 100 in steps of 1		
Volume (Step)[1]	Up	Down	Stop

*RGB output format is not applicable on the 232-ATSC+SDI model.

1. Volume (step) control is a press release function. The stop button has been made specifically for the MLC/TLP front panel configuration to mimic the release of Volume (Step).

Status Available:

Audio Mute	On	Off	
Close Caption Channel	CC1	CC2	CC3
	CC4	TEXT1	TEXT2
	TEXT3	TEXT4	
Closed Caption	On	Off	
Connection Status	Connected	Disconnected	Status Unavailable
Executive Mode	None	Channel	Volume
	Channel+Volume	Mute A/V	Channel+Mute A/V
	Volume+Mute A/V	All	
Major Channel*	Value		
Major Channel Status	Value		
Minor Channel*	Value		
Minor Channel Status	Value		
Output	RGB	YPbPr	
Power Control	On	Off	
Tuner Mode	Air	Cable	
Unit Number	1-9	All Units	
Video Mute	On	Off	
Volume (Discrete)	0 to 100 in steps of 1		

*Displays current selection; not actual status

Network communication:

When configuring the Ethernet driver, be sure device settings match that of the GC configuration.

Port Type:	Ethernet
Logon Credentials Supported:	No
Default Port:	23
Multi-Connection Capable:	Undetermined
Port Changeable:	Yes

Ethernet Driver Configuration Description:

Please refer to user manual for settings and changes to the network communication parameters such as: Port Number.

Notes for the Device: